

# *When I Think Back...*

by Neville Williams

## ***Ferris Bros Radio, a prominent Australian firm: but the truth is stranger than fiction! (1)***

Old timers who can recall the 'golden years of radio' and of black and white TV during the years that followed, should have no difficulty in recalling Ferris Brothers with their pace-setting car radios and their Channel Master TV antennas. What you may not know are the parlous circumstances surrounding the Company's initial foundation, and its subsequent deviations from the straight and narrow path of electronics.

For this fascinating story, I am indebted in the first instance to John P. Emanuel (VK2EJP) who served most of his formal apprenticeship in the Company during its prosperous years. Now, along with his wife and son, he operates John P. Emanuel Pty Ltd, specialists in automotive electronic servicing (fax/phone (02) 871 8230).

Back in September last, John dropped me a line suggesting that there was an interesting story to be told in 'When I Think Back' — to do with Ferris Bros. More to the point, he knew W.M. ('Chum') Ferris well, and volunteered to contact him on my behalf, to seek his cooperation in the preparation

of an article for the magazine.

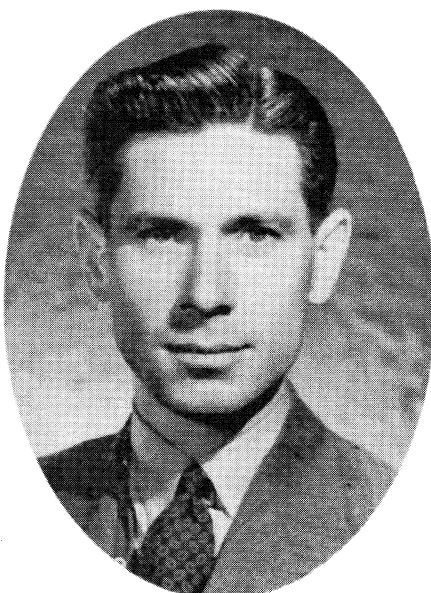
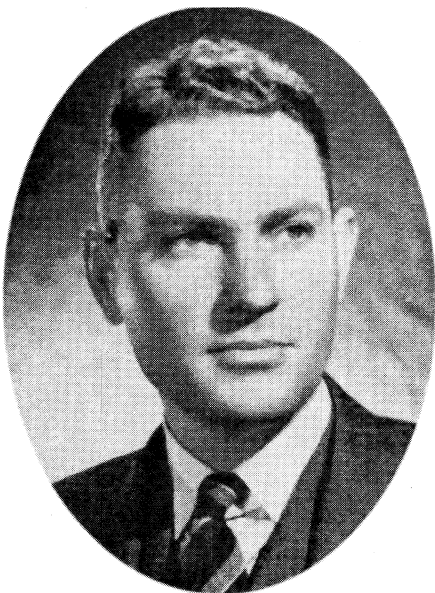
Back in the old days, I remembered Ferris Bros as a very businesslike organisation, and Chum's reaction was still true to form even in his eighties. Yes, he would be delighted to see the story in print and, rather than rely on memory, would check through his files to provide documented facts.

The package I received, in an original Ferris cardboard carry carton, was an eloquent tribute to the staff who, over the years, had prepared the printed matter that emanated from the organisation — from advertising and handbills to data sheets and complete service manuals. Their collection consumed rather more

time than Chum had anticipated, because each new file opened another window on the past and refreshed the memory of personalities far too numerous to permit individual mention in the proposed story.

Thank you, Chum, for your thoroughness and for your obvious awareness that history ideally starts at the beginning: 'Once upon a time...'

In keeping with that observation was an historic Company brochure entitled *After Seven Years*. In the form of a Directors' Report, it carried an annual financial statement for the period July 1, 1942 to June 30, 1943. Elsewhere in the brochure and more relevant to the present exercise was a summary of the



***Three of the Ferris executives as pictured in the early 1940s. On the left is the late George I. Ferris, Chairman and Managing Director. In the centre is W.M. ('Chum') Ferris, company founder and Technnnical Executive, then in his early 30s. On the right is Mr E.S. Wyatt, who joined in the mid 1930s and helped pilot it from a struggling family business into a registered company.***

***In 1935 Ferris Bros. Radio opened for business in this unimpressive shop in a residential environment in Mosman, NSW. Company assets were 126 pounds in the bank, an old Hupmobile car, a small kit of tools, two ambitious brothers and a supportive family.***

Company's affairs for the initial seven years — right from start-up.

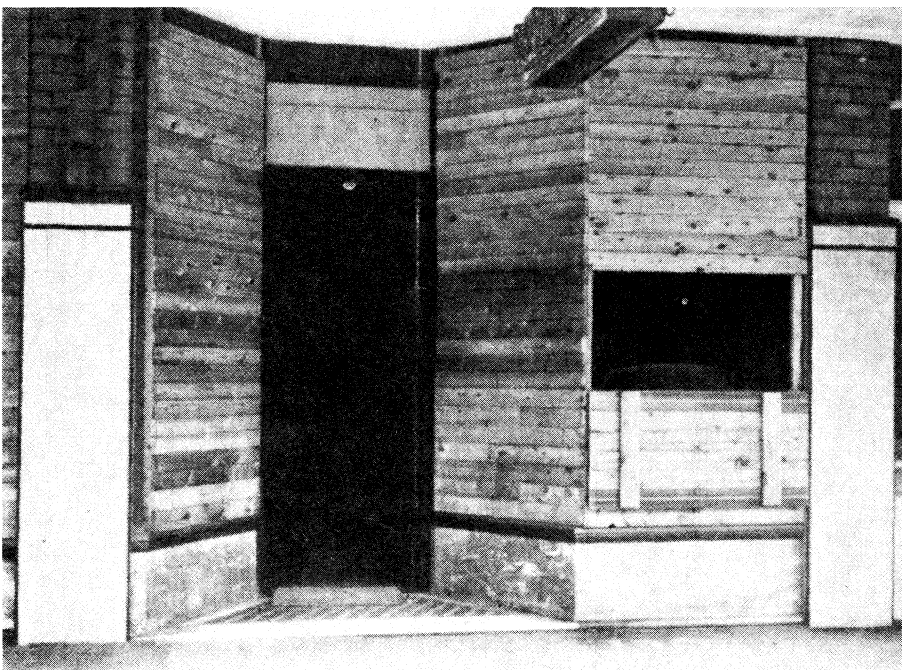
What it doesn't mention is that 'Chum' Ferris had been exposed initially to the so-called radio 'bug' in his early teens, at Noyes Bros, Philips and AWA. The outcome in his case was an urge to establish a radio business of his own...

The shadow on the Great Depression still hung over Australia when Ferris Bros. Radio opened its doors for business in October 1932. Looking back, Chum Ferris is amazed that the venture survived at all for more than a few weeks. It occupied a very small shop in an out-of-the-way position in Mosman, Sydney, which had to serve both as a showroom and a service centre.

**Brothers' dream**

From the outset, the plan was to manufacture and sell their own brand of radio receivers, as well as distributing and servicing as many other brands as might become available.

The staff comprised just two people: Mr W.M. ('Chum') Ferris, Manager (aged all of 18 years), and a 'boy' assistant. Beside the tiny rented shop they had access to an ancient Hupmobile tourer, belonging originally to Chum's elder brother George and notable for its thirst



for fuel — plus a tendency to leave behind blobs of oil whenever it was parked for any significant length of time.

In conversation, Chum recalled that he had fitted it out with a radio set, although not a car radio in any formal sense of the term. A traditional battery set powered by ordinary batteries and housed in a metal box, it was fed from an aerial wire strung back and forth under the fabric hood.

Primitive though it might have been, Chum said that it was probably the seed from which sprang subsequent generations of Ferris Bros' car radios, caravan and farm radios, portables and

'small-ships' marine equipment.

In the meantime, by the time they had purchased the bare minimum of equipment and stock to open the doors for business as planned, the cash balance at the Bank stood at five pounds — \$10 in today's coinage. In practical terms that meant that they had to build radio sets one at a time, selling each one before they could purchase the parts to build another!

In 1933 the opportunity came to move to better premises in Military Rd, Mosman; while not much larger than the original shop, it was at least in the retail area and had previously been a radio shop. Business gradually improved, sufficient to justify the addition of a man to the staff on a part-time basis, to look after the books and 'mind the shop' whenever Chum's mother wasn't available.

During 1934/5 Mr G.I. (George) Ferris, Chum's brother, invested money in the business, which helped to buy additional plant and stock and to finance modest advertising. At the time he had been working meantime for CSR in New Zealand and Fiji.

**Modest progress**

In fact, 1935 proved to be an important year, with business reaching a level which justified the purchase of a new Chevrolet panel van. Its appear-



***The later Mosman Store as pictured in 'After Seven Years'. Flanked by other shops in a commercial situation, it offered electrical as well as radio service and expanded later to accommodate workshop facilities on the floor above.***



**Ferris Bros. factory and head office as set up in 1942 in Dowling St, East Sydney. In this situation they diversified into vehicular service which became significant under wartime conditions.**

dubious shale oil deposits, as at Newnes and Mittagong in NSW. Maybe, just maybe, road vehicles could be converted to run on producer gas, as were a few combustion engines on outback properties, where charcoal was more readily to hand than motor spirit.

(That observation obliged me to 'think back' to my own country days. No, 'charcoal' didn't signify the ash left-over in the domestic stove or grate but, as a potential fuel, represented — I quote — 'the carbonaceous residue that results from the incomplete combustion of wood or other organic material'. I have recollections of people contriving kilns in the local bushland, to obtain 'fuel' charcoal for whatever reason; for example, for use in the blacksmith's forge.

I also have vague memories of the occasional local truck or car, with what looked like an oversize camp oven on the rear tray or luggage rack. It was, in fact, a 'producer gas' generator powering the engine in lieu of petrol vapour. While neither convenient nor particularly efficient, it was presumably preferable to an empty fuel tank!

To refresh my mind on how the system worked, I turned to a family encyclopaedia issued back in the 1930s. A producer gas generator, I discovered, contained a readily flammable ignition layer topped by a deep layer of charcoal. Air was sucked up through the device by a pipe connected to the intake manifold of the engine, with an intervening filter to protect the engine from solid particles.

To get the system going, the engine had first to be started on petrol, either from the normal tank or by gravity feed from a small auxiliary tank under the bonnet. Having thus set up suction via the intake manifold, the flammable layer in the producer was ignited, thereby igniting the adjacent charcoal and creating a high-temperature combustion mix of nitrogen and carbon dioxide.

In the environment of (very) hot gas, the upper layers of charcoal robbed the carbon dioxide of an oxygen atom to become carbon monoxide, an unstable — and poisonous — gas which could power the engine in much the same way as petroleum vapour. The petrol could then be turned off, leaving the engine to rely solely on carbon monoxide.

ance on the street in place of the dilapidated old Hupmobile indicated to local residents that the Ferris Bros store was making headway.

No less to the point, the title 'Ferris Bros' gained a still further dimension when G.I. Ferris returned to Australia and joined the firm as an active partner, raising to five the number of employees on staff. In the following year, there was a further move to 932 Military Rd, Mosman.

In 1936, it was evident that more capital would be necessary if the Company was to expand any further, and steps were taken to register the Company with G.I. (George) Ferris as Managing Director. Within a very short time 1300-odd shares were taken up, some by former friends in Fiji and New Zealand, and a third director (non-executive) was appointed in the person of Mr E.S. Wyatt.

At that stage, the Company began to move in a positive way, taking up a floor above the shop such that, for the first time, it had separate and dedicated space for a showroom and a factory/service facility.

To broaden the activities further, the directors decided to offer electrical servicing, with an initial arrangement to delegate any work to a licensed electrical contractor. The scheme worked well enough for a while, but it became apparent that Ferris needed qualified on-staff electricians — and finished up with no less than four of them, working full time.

But the major decision taken by the directors in late 1936 was to become involved in the manufacture of car radio receivers, for which there appeared to be an unsatisfied demand. When they

addressed themselves to the design, however, they encountered the kind of technical difficulties which had deterred other local manufacturers from exploiting the market. Two years were to elapse before Ferris had a basic design about which they could feel confident.

### War intervenes

In 1938, following a share issue, Ferris Bros opened Car Radio Australasia in William Street, Sydney — an area which had a traditional association with automobile distributors and suppliers. In 1939 they exhibited at the Royal Easter Show and to their unbounded delight, took sufficient on-the-spot orders to cover the outlay on the stand.

In normal circumstances they could have expected sales to build sufficiently from there on to absorb the total cost of the launch, but war had been declared and buyers had become very cautious as a result. There was talk of the radio industry being put on a war footing, and a rising tide of speculation about petrol rationing.

Car Radio Australasia nevertheless repeated their exhibit at the 1940 Royal Show, but while there was no shortage of 'lookers', they were clearly not inclined to buy. Ferris Bros 'got the message' and closed down the William St. Depot in June of that year, although not before its initial profits had been dissipated.

### Making producer gas?

Talk of petrol rationing had triggered spirited debate about alternative sources of supply, but current wisdom at the time was that Australia lacked petroleum resources of its own — beyond a few



Given an adequate supply of charcoal and a reasonably alert driver, vehicles could travel normally intracity and intercity. Chum Ferris recalls that he drove to Port Macquarie for his honeymoon, over 400km plus vehicular ferry river crossings, in a 1936 Ford V8 — on producer gas!

What, you may well ask, has this to do with Ferris Bros Radio? Well... faced with rented premises and product lines with an uncertain future, the directors began to speculate as to whether there might be a market for producer gas units for everyday road vehicles.

No one seemed to know much about them, but they appeared not to present too much of a problem in terms of metal fabrication. The 'bits' could be made by contract metalworkers and assembled wherever space was available — without publicising what the company was up to and motivating potential competitors!

Even so, at about this point in time, the directors were contacted by a man who claimed to know more about producer gas technology than anyone else in Australia. Unfortunately, such was the level of formal expertise on the subject that he might well have been telling the truth, without being any kind of an expert, himself! Progress, nevertheless, was painfully slow.

At the outset, the only source of charcoal in Sydney was from an experimental Government site at Pennant Hills. Failing to obtain an adequate supply, the 'expert' suggested that Ferris provide their own; said he: "There's nothing to it!"

Accordingly, they dug a couple of large pits at the rear of the Mosman premises. In a climate of wartime sensitivity, this soon triggered a visit from the police, to see what they were up to!

When the pits were duly loaded with fuel and logs and ignited, they began to emit large volumes of smoke — which steadily increased in density over the next 48 hours, to blanket the entire suburb. Councillors and officials became agitated, and were unimpressed by assurances that the Ferris Bros were involved in a confidential wartime research project!

## Success at last

The best that can be said was that, some 48 hours later, Ferris Bros had

***The contrivance on the back of this 1936 Ford V8 is not an extra luggage trunk, but Ferris Bros' Producer Gas Unit No.6, flanked by a re-positioned spare wheel, bumper bar and number plate. Using a vehicle like this, 'Chum' Ferris drove to Port Macquarie for his honeymoon.***

cooked enough logs and created enough charcoal to complement their efforts to develop a practical producer gas system. (They note, however, that charcoal production was never again attempted in the fair suburb of Mosman...)

Meanwhile developmental work continued night and day on gas producer No.1, and it was eventually strapped to the rear of a test car by removing the boot lid and securing the gas pipe along one side to the engine. Access to the vehicle was impeded and the driver had no rear vision. Gas was certainly generated, sufficient to support a naked metre-long flame from the producer, but none of it, alas, appeared to have reached the motor.

Units number 2 and 3 followed, registering further progress but not success. Unit 4 did gain State Government endorsement, being the first to do so in NSW, for an ordinary passenger vehicle. By September 1940, some 40 of the units had been assembled or completed — only to be faced with a change in Federal Government, which promised a petrol rationing scheme so liberal that few motorists would need a producer gas generator, anyway!

In the months that followed, Ferris Bros were hard put to it to keep their doors open. But then the position changed again, with the NSW Government actively supporting the fitting of producer gas systems at the Royal Easter Show in 1941. 1941/42 emerged as a bumper year for the Company, such that they opened new automotive premises in Dowling Street, City, not far from the earlier venture.

This time, they were determined to major on producer gas equipment sales and service for as long as it might last — diversifying to electrical contracting, automotive work and car radio as neces-

sary to keep the staff occupied. The Head Office and general sales organisation was also re-located in the same building. To embrace the wider activities, the name was changed to Ferris Bros Pty Ltd.

(In practice, a significant number of producer gas units were ignited only rarely. For much of the time they served to conceal the fact that the driver was really running on blackmarket spirit!)

Be that as it may, the brochure *After Seven Years* ends on an optimistic note with the Company finances in a healthy state and a conviction that, after the war, there would inevitably be a more intensive call on the Company's varied services.

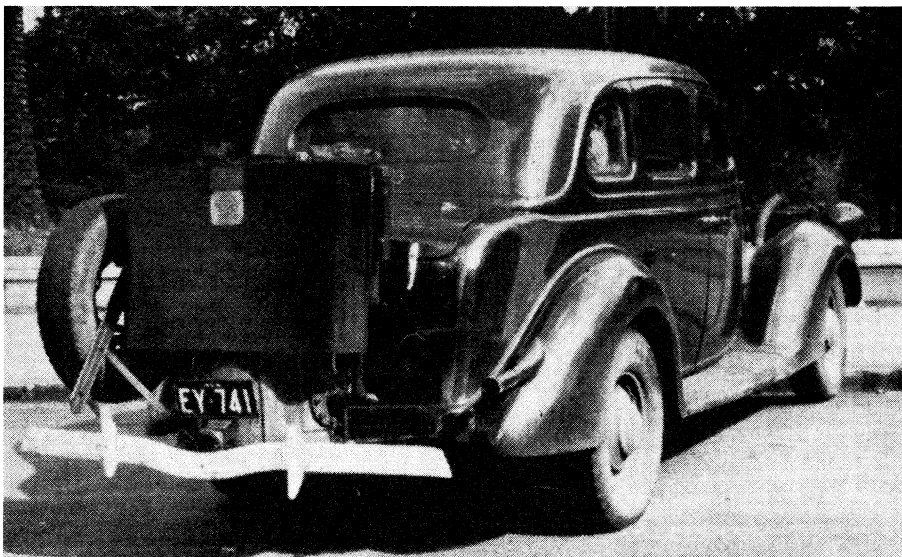
## Even further from radio

Lest there be any reservations about my earlier reference to deviations by the Company 'from the straight and narrow path', the final segment in the brochure refers to a rural investment — a stud piggery in what is now the Sydney suburb of Blacktown. It was an investment in which Chum Ferris took an active role, adding: "Knowing how Blacktown has developed recently, can you imagine what the real estate value of that piggery would have been on present day values?"

Frankly, I didn't have a clue, but confessed to being more intrigued with another aspect of the Ferris Bros story: the *After Seven Years* brochure had surveyed activities of the Company up to mid-1943, but had made little or no mention of producing equipment for the armed forces. If nothing else, would that not have created a problem in terms of manpower?

Chum's answer was that things had simply worked out that way, with Ferris Bros' accepted role being, as he put it, "To keep the home fires burning".

With severe restrictions on the pro-



duction of new radio and electrical equipment, faulty items had to be repaired or reworked wherever possible. It was a task that Ferris Bros were well equipped to handle, extending beyond domestic equipment to marine receivers and transceivers.

With a team of licenced electricians, they were also well placed to cope with problems involving 240V mains operated equipment, including mains powered refrigerators and industrial equipment.

Their involvement with producer gas equipment had direct implications for both State and Federal Governments, and also extended to a role in vehicle servicing. Far from frustrating Ferris, the Manpower Authorities cooperated in their efforts to maintain civilian services at a viable level — even as a primary producer supplying pork to the breakfast table! (They became an accredited supplier to American troops in the Pacific area.)

In line with their expectations, business built rapidly as the war drew to an end, with staff numbers reaching 120 by 1950. There was also an expanding network of distributors handling Ferris products and services throughout the Commonwealth.

### Ferris Bros postwar

In that same year Ferris Bros. Properties Ltd was formed, with the express purpose of erecting a modern factory for the manufacturing company, Ferris Bros. Pty Ltd. Keen to vacate the City address, the directors purchased a site fronting Pittwater Road, Brookvale, where they erected a new factory with a floor area of 14,700ft<sup>2</sup> (1370m<sup>2</sup>). It was occupied in May 1953 and enlarged by a further 5000ft<sup>2</sup> (465m<sup>2</sup>) in the following year. The complex was designated as their Head Office and Number 1 Factory.

In June, 1953 Ferris Bros acquired a controlling interest in Telecomponents Pty Ltd, with the idea of making use of their component manufacturing resources in the manufacture of Ferris car radio receivers. In fact, the Telecomponents section expanded in its own right, with direct sales to outside companies achieving an ultimate level many times the value of those absorbed by Ferris itself.

(For example, a catalog dated April 1969 offers power transformers and other machine-wound replacement components to servicemen, to suit no less than 21 listed brands of B&W TV sets on the Australian market).

The directors responded in 1955 by setting up Ferris Industries as the holding company, with the intention of acquiring



***Born in Orange and educated at Newington College and Sydney Tech, G.M. (George) Holland served as a radar officer in the RAN and then Engineer/Management at Cockatoo docks. Joined Ferris in 1959, became Manager, then Chairman of Telecomponents, Board Member of Ferris Bros and subsidiaries.***

the shares of both Ferris Bros and Telecomponents. The amalgamation paved the way for public company status, and the shares were duly listed on the Sydney Stock Exchange in 1956.

In the meantime, negotiations were commenced in 1954/5 with two American Companies — Raytheon for manufacturing rights of TV receivers, and the Channel Master Corporation for TV aerials and accessories. Agreements were finalised in late 1955, following an extended visit by Chum Ferris to both companies.

From the very outset, the Channel Master Pty Ltd subsidiary was very successful. But efforts to develop and market a TV receiver ran into major problems with superseded stock, wasted time and energy — and especially, bad debts of the kind that ultimately scuttled firms like Admiral and Stromberg-Carlson.

To make matters worse, I gather, Ferris offered sets in a metal cabinet, American style — which they were well equipped to produce with their earlier experience in sheet metal work. To quote an old timer from the era: "They weren't bad little sets, but most Australian buyers were looking for a piece of furniture — polished wood!"

### Better times ahead

TV receiver production was suspended in 1960, marking what George I. Ferris, Chairman and Managing Director, nominated as a sad and bitter experience. He described it as the one fundamental error in planning that the Company had made since its foundation in 1932.

Curiously, I myself chanced to gain by their dilemma. About that time I had built a 21" TV set, as a magazine project and also for my own family use. I happened to drop into the Ferris factory and noticed a dusty 21" TV cabinet sitting forlornly in an odd corner. When I mentioned it, I was told that it was a sample that had outlived its purpose. If it was of any use to me, take it away — with our compliments!

So it was that the Williams family watched B&W TV of the era on an R,TV & H prototype chassis, in a cabinet styled for a Ferris/Raytheon model that didn't survive! (More about TV receivers in the next article).

Fortunately, other aspects of the Ferris enterprise continued to expand, to the extent that the Brookvale premises became totally inadequate. More land was acquired adjacent to Mitchell Rd, Brookvale, a quarter-mile from the No.1 factory and Head Office. There, a new factory was completed in 1956, offering an extra 28,000ft<sup>2</sup> (2600m<sup>2</sup>) of space which was allocated initially to a tool room and machine, sheet metal and paint shops.

In due course, purpose-built annexes to the two factories and covered walkways occupied most of the intervening space, forming what old-timers from the organisation regarded as a third factory.

During the period 1958/59, branches had been opened in Melbourne, Newcastle, Wollongong and Brisbane; factory representatives were set up in a half-dozen regional cities, and wholesale distributors appointed in Perth and Tasmania. Ferris had strategic coverage nationwide, with the all-up staff level hovering around 700!

Ferris interests also spread overseas in the early 1960s with shares in Channel Master (N.Z.) Ltd., with other joint ventures in Malayasia and Singapore subsequently — in the latter case involving GEC.

If the Ferris brothers had been dismayed by their venture into TV set production, their losses had been more than compensated by the demand for components and services to do with TV antennas.

*(To be continued) ♦*